

Application No. 10/731,351
Prelim. Amdt. Dated 05/12/04

In the Specification:

Please amend the following paragraphs:

[0001] Applicants hereby ~~[[claims]]~~ claim foreign priority benefits under U.S.C. § 119 of Japanese Patent Application No. 2002-362269, filed December 13, 2002, and the content of which is herein incorporated by reference.

[0023] FIG. 6 is diagram for explaining sticking of the metering valve;
~~[[and.]]~~ and

[0038] A variety of sensors are provided to detect the operation state of the engine and the vehicle carrying the engine. Those sensors include a crank sensor 22 for detecting the crank angle of the engine, an accelerator opening degree sensor 23 for detecting the accelerator opening degree, an accelerator switch 24 for detecting whether the accelerator opening degree is 0 or not, and a gear position sensor 25 for detecting the gear position (including neutral~~[[including]]~~) of the transmission. Those sensors are electrically connected to the ECU 18. Further, the ECU 18 computes the engine revolution speed based on the output pulse of the crank sensor 22. In addition, a pressure sensor 21 for detecting the actual common rail pressure is provided in the common rail 2, and this pressure sensor 21 is also electrically connected to the ECU 18.

[0039] The opening degree of the metering valve 7 is controlled by the drive signal, in particular the duty drive signal, supplied from the ECU 18. A Pulse Width Modulation (PWM) ~~[[PWM]]~~ circuit for generating the duty drive signal is provided in the ECU 18. Further, the duty ratio, as referred to in the present embodiment, stands for a ratio of ON time per one period (unit time).